

# Biology

## Master of Biology, Directed Study track

This degree map is a SAMPLE only. It is based on the current Academic Catalog and is subject to change. Students should meet with their academic advisor each semester and use Degree Works to monitor their individual progress toward degree completion. The time it takes to earn a degree will vary based on several factors including summer/winter enrollment and number of courses successfully completed each semester.

### Sample 2 Year Plan- Full Time – Spring Start

First Year					
Spring Courses	Credits	Summer Courses	Credits	Fall Courses	Credits
STAT546 Bioinformatics	3			Elective	3
Elective	3			Elective	3
Identify Directed Study and mentor				Directed Study Proposal	
Semester Total	6	Semester Total	0	Semester Total	6

Second Year					
Spring Courses	Credits	Summer Courses	Credits	Fall Courses	Credits
Elective	3			Elective	3
Elective	3			Elective	3
BIOL 593 Directed Study in Biology	3			Elective	3
Oral Examination				Presentation of Directed Study	
Semester Total	6	Semester Total	0	Semester Total	6

**Total Credits: 30**

*Part-time or Full-time completion options are available.*

### Degree Requirements

This course map indicates full-time matriculation and a Spring semester start. However, the review of applications and acceptance into this program is in a rolling basis. A student can start in any semester and can choose a part-time option as well. An adviser will establish a course map for you if you decide to start in Spring/Summer semesters or decide to take a part-time option.

Students must complete all 30 credits and all course requirements for the selected major. Meet with your advisor and consult Degree Works to monitor your progress and for all graduation requirements.

*A minimum GPA of 3.0 is required to maintain enrollment in the program.*

### Campus Locations

- Bloomsburg**    Online;  In-person;  Blended
- Lock Haven**    Online;  In-person;  Blended
- Mansfield**    Online;  In-person;  Blended
- Clearfield**    Online;  In-person;  Blended

## **Curriculum Checklist**

### **A. Biostatistics (3 credits)**

\_\_\_STAT 546 Biostatistics

### **B. Directed Study (3 credits)**

\_\_\_BIOL 594 Master of Science Thesis

### **C. Topic Specific Electives (24 credits)**

\_\_\_BIOL 500 Dendrology (3)

\_\_\_BIOL 501 Entomology (3)

\_\_\_BIOL 519 Ecosystems (3)

\_\_\_BIOL 520 Global Change Bio (3)

\_\_\_BIOL 530 Evolution (3)

\_\_\_BIOL 531 Mycology (3)

\_\_\_BIOL 532 Ornithology (3)

\_\_\_BIOL 533 Ichthyology (3)

\_\_\_BIOL 534 Herpetology (3)

\_\_\_BIOL 535 Conservation Genetics (3)

\_\_\_BIOL 538 Environmental Policies (3)

\_\_\_BIOL 539 Hum Dim in Fisheries Mg (3)

\_\_\_BIOL 541 Mg of Lg Impoundments (3)

\_\_\_BIOL 543 Molecular Biology (3)

\_\_\_\*BIOL 544 Molecular Biology lab (1)

\_\_\_BIOL 545 Pharmacology (3)

\_\_\_BIOL 546 Immunology (3)

\_\_\_\*BIOL 547 Immunology lab (1)

\_\_\_BIOL 548 Advanced Parasitology (3)

\_\_\_BIOL 550 Developmental Biology (3)

\_\_\_BIOL 551 Conservation Biology (3)

\_\_\_BIOL 552 Freshwater Ecology (3)

\_\_\_BIOL 553 Freshwater Entomology (3)

\_\_\_BIOL 554 Algae of Freshwater Eco (3)

\_\_\_BIOL 555 Community Ecology (3)

\_\_\_BIOL 556 Enviro Toxicology (3)

\_\_\_BIOL 560 Plants, Animals, Natural History of PA (3)

\_\_\_BIOL 561 Animal Behavior (3)

\_\_\_BIOL 562 Cancer Biology (3)

\_\_\_BIOL 565 Medical Genomics (3)

\_\_\_BIOL 566 Bioinformatics (3)

\_\_\_\*BIOL 570 Tissue Culture (1)

\_\_\_BIOL 571 Endocrinology (3)

\_\_\_BIOL 573 Environmental Physiology (3)

\_\_\_BIOL 574 Human Physiology (3)

\_\_\_BIOL 575 Animal Cell Physiology (3)

\_\_\_BIOL 576 Neurophysiology (3)

\_\_\_BIOL 577 Plant Physiology (3)

\_\_\_BIOL 579 Comparative Animal Physiology (3)

\_\_\_\*BIOL 580 Integrated Physiology lab (1)

\_\_\_BIOL 586 Analysis & Comm of Bio Data (3)

\_\_\_BIOL 587 Genomics and Genetic Engineering(2)

\_\_\_BIOL 589 Special Topics in Biology (3)3

\_\_\_BIOL 598 Internship in Biology (3-6crs)

\*Take with BIOL 587